CLAIMS

1. A method for securely and scalably encoding data, said method comprising the steps of:
   a) receiving data;
   b) segmenting said data into corresponding regions;
   c) scalably encoding at least one of said regions into scalable data;
   d) progressively encrypting said scalable data to generate progressively encrypted scalable data; and
   e) packetizing said progressively encrypted scalable data.

2. The method for securely and scalably encoding data as recited in Claim 1 wherein said step a) comprises:
   receiving video frame data.

3. The method for securely and scalably encoding data as recited in Claim 1 wherein said step a) comprises:
   receiving prediction error data generated by a video prediction unit.

4. The method for securely and scalably encoding data as recited in Claim 1 wherein said step c) further comprises:
   scalably encoding said at least one of said regions into said scalable data and into header data wherein said header data provides information corresponding to said scalable data.

5. The method for securely and scalably encoding data as recited in Claim 4 wherein said step d) further comprises:
   d1) encrypting said header data to provide encrypted header data.

6. The method for securely and scalably encoding data as recited in Claim 4 wherein said step e) further comprises:
   packetizing said progressively encrypted scalable data and said header data.

7. The method for securely and scalably encoding data as recited in Claim 5 wherein said step e) further comprises:
   packetizing said progressively encrypted scalable data and said encrypted header data.

8. The method for securely and scalably encoding data as recited in Claim 5 wherein said data is selected from the group comprising: video data, audio data, image data, graphic data, and web page data.

9. The method for securely and scalably encoding data as recited in Claim 1 wherein said step b) comprises:
   segmenting said data into corresponding rectangular regions.

10. The method for securely and scalably encoding data as recited in Claim 1 wherein said step b) comprises:
   segmenting said data into corresponding non-rectangular regions.

11. The method for securely and scalably encoding data as recited in Claim 1 wherein said step b) comprises:
   segmenting said data into corresponding overlapping regions.

12. The method for securely and scalably encoding data as recited in Claim 1 comprises performing steps b) through e) for only a portion of said data received at step a).

13. A secure and scalable encoding system for encoding data, said secure and scalable encoding system comprised of:
   a segmenter, said segmenter adapted to receive data and segment said data into corresponding regions;
   a scalable encoder coupled to said segmenter, said scalable encoder adapted to encode at least one of said regions into scalable data;
   a progressive encrypter coupled to said scalable encoder, said progressive encrypter adapted to progressively encrypt said scalable data to generate progressively encrypted scalable data; and
   a packetizer coupled to said progressive encrypter, said packetizer adapted to packetize said progressively encrypted scalable data.

14. The secure and scalable encoding system of Claim 13 wherein said data is comprised of video frame data.

15. The secure and scalable encoding system of Claim 13 wherein said segmenter is adapted to receive prediction error video data generated by a video prediction unit.

16. The secure and scalable encoding system of Claim 13 further comprising a video prediction unit coupled to said segmenter, said video prediction unit adapted to generate prediction error video data and provide said prediction error data to said segmenter.

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17. The secure and scalable encoding system of Claim 13 wherein said scalable encoder is further adapted to encode said at least one of said regions into said scalable data and into header data wherein said header data provides information corresponding to said scalable data.

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18. The secure and scalable encoding system of Claim 17 wherein said progressive encrypter is further adapted to encrypt said header data to provide encrypted header data.

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19. The secure and scalable encoding system of Claim 17 wherein said packetizer is further adapted to packetize said progressively encrypted scalable data and said header data.

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20. The secure and scalable encoding system of Claim 18 wherein said packetizer is further adapted to packetize said progressively encrypted scalable data and said encrypted header data.

21. A computer readable medium having computer readable code stored thereon for causing a device to perform the secure and scalable

25 encoding steps of:

    a) receiving data;

    b) segmenting said data into corresponding regions;

    c) scalably encoding at least one of said regions into scalable data;

    d) progressively encrypting said scalable data to generate

30 progressively encrypted scalable data; and

    e) packetizing said progressively encrypted scalable data.

22. The method as recited in Claim 21 wherein said computer readable medium further includes computer readable code stored thereon

35 for causing said device performing said step a) to receive video frame data.

23. The method as recited in Claim 21 wherein said computer readable medium further includes computer readable code stored thereon

for causing said device performing said step a) to receive prediction error video data generated by a video prediction unit.

24. The method as recited in Claim 21 wherein said computer readable medium further includes computer readable code stored thereon for causing said device performing said step c) to scalably encode said at least one of said regions into said scalable data and into header data wherein said header data provides information corresponding to said scalable data.

25. The method as recited in Claim 24 wherein said computer readable medium further includes computer readable code stored thereon for causing said device performing said step d) to encrypt said header data to provide encrypted header data.

26. The method as recited in Claim 24 wherein said computer readable medium further includes computer readable code stored thereon for causing said device performing said step e) to packetize said progressively encrypted scalable data and said header data.

27. The method as recited in Claim 25 wherein said computer readable medium further includes computer readable code stored thereon for causing said device performing said step e) to packetize said progressively encrypted scalable data and said encrypted header data.

28. The method for securely and scalably encoding data as recited in Claim 5 wherein said data is selected from the group comprising: video data, audio data, image data, graphic data, and web page data.

29. The method for securely and scalably encoding data as recited in Claim 21 wherein said step b) comprises:
segmenting said data into corresponding rectangular regions.

30. The method for securely and scalably encoding data as recited in Claim 21 wherein said step b) comprises:
segmenting said data into corresponding non-rectangular regions.

31. The method for securely and scalably encoding data as recited in Claim 21 wherein said step b) comprises:

segmenting said data into corresponding overlapping regions.

32. The method for securely and scalably encoding data as recited in Claim 21 comprises performing steps b) through e) for only a portion of said data received at step a).

33. A method for decoding data which has been securely and scalably encoded, said method comprising the steps of:

a) receiving a packet containing progressively encrypted and scalably encoded data;

b) decrypting said packet containing said progressively encrypted and scalably encoded data to generate scalably encoded regions;

c) decoding said scalably encoded regions to provide decoded regions; and

d) assembling said decoded regions to provide data.

34. The method for decoding data which has been securely and scalably encoded, as recited in Claim 33 wherein said step a) comprises:

receiving said packet containing said progressively encrypted and scalably encoded data, said packet also including header data wherein said header data provides information corresponding to said scalably encoded data.

35. The method for decoding data which has been securely and scalably encoded, as recited in Claim 33 wherein said step a) further comprises:

receiving said packet containing said progressively encrypted and scalably encoded data, said packet also including encrypted header data wherein said encrypted header data provides information corresponding to said scalably encoded data.

36. The method for decoding data which has been securely and scalably encoded, as recited in Claim 35 wherein step b) further comprises:

decrypting said encrypted header data.

37. The method for decoding data which has been securely and scalably encoded, as recited in Claim 33 wherein step d) further comprises:

assembling said decoded regions to provide video frame data.

38. The method for decoding data which has been securely, and scalably encoded, as recited in Claim 33 wherein step d) further

5   comprises:

assembling said decoded regions to provide prediction error video data for use by a video prediction unit.

39. A decoding system for decoding data encoded using a secure

10   and scalable encoding system, said decoding system comprised of:

a decrypter, said decrypter adapted to receive a packet containing progressively encrypted and scalably encoded data and decrypt said packet to provide scalably encoded regions;

a decoder coupled to said decrypter, said decoder adapted to decode

15   said scalably encoded regions to provide decoded regions; and

an assembler coupled to said decoder said assembler adapted to assemble said decoded regions to provide data.

40. The decoding system of Claim 39 for decoding data encoded

20   using a secure and scalable encoding system wherein said decrypter is further adapted to receive a packet containing said progressively encrypted and scalably encoded data and also including unencrypted header data wherein said unencrypted header data provides information corresponding to said scalably encoded data.

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41. The decoding system of Claim 39 for decoding data encoded using a secure and scalable encoding system wherein said decrypter is further adapted to receive a packet containing said progressively encrypted and scalably encoded data and also including encrypted header

30   data wherein said encrypted header data provides information corresponding to said scalably encoded data, said decrypter further adapted to decrypt said encrypted header.

42. The decoding system of Claim 39 for decoding data encoded

35   using a secure and scalable encoding system wherein said assembler is further adapted to assemble said decoded regions to provide video frame data.

43. The decoding system of Claim 39 for decoding data encoded using a secure and scalable encoding system wherein said assembler is further adapted to assemble said decoded regions to provide prediction error video data for use by a video prediction unit.

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44. A computer readable medium having computer readable code stored thereon for causing a device to decode data which has been securely and scalably encoded, said method comprising the steps of:

a) receiving a packet containing progressively encrypted and scalably encoded data;

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b) decrypting said packet containing said progressively encrypted and scalably encoded data to generate scalably encoded regions;

c) decoding said scalably encoded regions to provide decoded regions; and

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d) assembling said decoded regions to provide data.

45. The method as recited in Claim 44 wherein said computer readable medium further includes computer readable code stored thereon for causing said device performing said step a) to receive said packet

20 containing said progressively encrypted and scalably encoded data wherein said packet also includes header data, said header data providing information corresponding to said scalably encoded data.

46. The method as recited in Claim 44 wherein said computer

25 readable medium further includes computer readable code stored thereon for causing said device performing said step a) to receive said packet containing said progressively encrypted and scalably encoded data, wherein said packet also includes encrypted header data, said encrypted header data providing information corresponding to said scalably encoded

30 data.

47. The method as recited in Claim 46 wherein said computer readable medium further includes computer readable code stored thereon for causing said device performing said step b) to decrypt said encrypted

35 header data.

48. The method as recited in Claim 44 wherein said computer readable medium further includes computer readable code stored thereon

for causing said device performing said step d) to assemble said decoded regions to provide video frame data.

49. The method as recited in Claim 44 wherein said computer readable medium further includes computer readable code stored thereon for causing said device performing said step d) to assemble said decoded regions to provide prediction error video data for use by a video prediction unit.